

WHAT IS CLAIMED IS:

1. A modular drive wheel for log processors comprising:

5 a tubular midsection sandwiched between a pair of annular rings mounted concentrically on opposite ends of said midsection,

wherein said midsection has a resilient outer surface extending around said midsection,

10 wherein said pair of annular rings each have a radially spaced apart array of notches therearound, and wherein said notches in said radially spaced apart arrays of notches are sized to snugly receive in releasable locking engagement therein links on opposite ends of chain segments extending between said pair of annular rings,

15 said drive wheel further comprising means mounted between said pair of annular rings for selectively forcing apart said pair of annular rings along a longitudinal axis of symmetry of said midsection.

20 2. The device of claim 1 further comprising a radially spaced apart array of grooves extending substantially longitudinally along said midsection so as to be substantially parallel to said longitudinal axis of symmetry of said midsection, wherein said grooves are formed in said resilient outer surface of said midsection, and wherein said grooves are aligned with corresponding notches in said radially spaced apart arrays of notches, said arrays of notches in oppositely disposed relation to each other on oppositely disposed ends 25 of said pair of annular rings.

3. The device of claim 2 further comprising a plurality of chain segments mounted around said midsection in a radially spaced apart array, each chain segment of said plurality of

chain segments substantially parallel to said longitudinal axis and having a length which is long enough to extend from being releasably locked into a corresponding said notch at one end of said each chain segment, and, at the other end of said each chain segment, releasably locked into a corresponding oppositely disposed said notch so as to align said each chain segment along a corresponding groove of said array of grooves.

- 5           4. The device of claim 2 wherein one annular ring of said pair of annular rings further comprises a skirt ring mounted thereto and extending therearound from a base thereof, said skirt ring having a radially spaced apart array of notches therearound for releasably mating with a link between opposite end links of each of said chain segments when a plurality of said chain segments are mounted around said midsection, in a radially spaced array of chain segments each substantially parallel to said longitudinal axis, so as to guide links in said chain segments into mating alignment with corresponding grooves in said array of grooves around said midsection.

10

- 15         5. The device of claim 2 wherein said radially spaced apart arrays of grooves on said midsection are equally radially spaced apart and wherein said notches on said pair of annular rings are equally radially spaced apart.

20

6. The device of claim 4 wherein said means for forcing apart said pair of annular rings includes a telescoping mounting means telescopically mounting a first annular ring of said annular rings to said midsection.

25

7. The device of claim 6 wherein said telescopic mounting means includes a first annular flange concentrically rigidly mounted within said first annular ring, a second annular flange concentrically rigidly mounted within said midsection and selectively adjustable spacing means, for selectively adjusting a longitudinal spacing between said first and second annular flanges, mounted between said first and second annular flanges.

8. The device of claim 7 wherein said spacing means includes a threaded member threadably engaging corresponding threaded apertures in said first and second annular flanges.

5 9. The device of claim 8 wherein said spacing means includes removably mountable rigid spacers removably mountable between said first and second annular flanges.

10 10. The device of claim 2 wherein said radially spaced apart array of grooves are formed as parallel helical spirals helically spiralling about said longitudinal axis.

10 11. The device of claim 6 wherein said skirt ring is mounted to a second annular ring of said pair of annular rings opposite to said first annular ring.

12. A modular drive wheel for log processors comprising:

15 a tubular midsection sandwiched between a pair of annular rings mounted concentrically on opposite ends of said midsection,

wherein said midsection has a resilient outer surface extending around said midsection,

20 a plurality of chain segments mounted around said midsection in a radially spaced apart array, each chain segment of said plurality of chain segments substantially parallel to said longitudinal axis and having releasably locking into a corresponding said notch at one end of said each chain segment, and, at the other end of said each chain segment, releasably locking into a corresponding oppositely disposed said notch,

25

wherein said notches in said radially spaced apart arrays of notches are sized to snugly receive in releasable locking engagement therein links on opposite ends of chain segments extending between said pair of annular rings,

- 5           said drive wheel further comprising means mounted between said pair of annular rings for selectively forcing apart said pair of annular rings along said longitudinal axis.
- 10          13. The device of claim 12 further comprising a radially spaced apart array of grooves extending substantially longitudinally along said midsection so as to be substantially parallel to a longitudinal axis of symmetry of said midsection, wherein said grooves are formed in said resilient outer surface of said midsection, and wherein each annular ring of said pair of annular rings having a radially spaced apart array of notches there-around, said grooves are aligned with corresponding notches in said radially spaced apart arrays of notches, said arrays of notches in oppositely disposed relation to each other on oppositely disposed ends of said pair of annular rings.
- 15          14. The device of claim 12 wherein one annular ring of said pair of annular rings further comprises a skirt ring mounted thereto and extending therearound from a base thereof, said skirt ring having a radially spaced apart array of notches therearound for releasably mating with a link between opposite end links of each of said chain segments when a plurality of said chain segments are mounted around said midsection, in a radially spaced array of chain segments each substantially parallel to said longitudinal axis, so as to guide links in said chain segments into mating alignment with corresponding grooves in said array of grooves around said midsection.
- 20          15. The device of claim 12 wherein said radially spaced apart arrays of grooves on said midsection are equally radially spaced apart and wherein said notches on said pair of annular rings are equally radially spaced apart.

16. The device of claim 14 wherein said means for forcing apart said pair of annular rings includes a telescoping mounting means telescopically mounting a first annular ring of said annular rings to said midsection.

5

17. The device of claim 16 wherein said telescopic mounting means includes a first annular flange concentrically rigidly mounted within said first annular ring, a second annular flange concentrically rigidly mounted within said midsection and selectively adjustable spacing means, for selectively adjusting a longitudinal spacing between said first and second annular flanges, mounted between said first and second annular flanges.

10

18. The device of claim 17 wherein said spacing means includes a threaded member threadably engaging corresponding threaded apertures in said first and second annular flanges.

15

19. The device of claim 18 wherein said spacing means includes removably mountable rigid spacers removably mountable between said first and second annular flanges.

20

20. The device of claim 12 wherein said radially spaced apart array of grooves are formed as parallel helical spirals helically spiralling about said longitudinal axis.

21. The device of claim 16 wherein said skirt ring is mounted to a second annular ring of said pair of annular rings opposite to said first annular ring.